UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,741	10/30/2007	Xiaobao Chen	RJENK41.007APC	9666

20995 7590 06/22/2011

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER
REDDIVALAM, SRINIVASA R

ART UNIT	PAPER NUMBER
2477	

NOTIFICATION DATE	DELIVERY MODE
06/22/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
efiling@kmob.com
eOAPilot@kmob.com

Office Action Summary	Application No.	Applicant(s)	
	10/588,741	CHEN, XIAOBAO	
	Examiner	Art Unit	
	SRINIVASA REDDIVALAM	2477	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-10 and 13-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 6-10 and 13-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 6, 9-10, and 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman et al. ("Hierarchical Mobile IPv6 mobility management (HMIPv6)", June, 2003) in view of Lee et al. (US Patent No: 6,915,325 B1).

Regarding claim 1, Soliman et al. teach a method (see Abstract and Fig.1 on page 11) of operating a network entity (see page 11, Fig.1, **block *MAP* for a network entity**) at an intermediate node (see AR1/AR2 in Fig.1 and page 11, lines 13-15) between a mobile node in a foreign network (see MN in Fig.1 and page 11, lines 7-8) and a correspondent node (see CN in Fig.1), the method comprising:

allocating a secondary care of address to the network entity **(**see page 19, section 6 i.e. protocol operation, wherein forming **secondary care of address/RCoA** on MAP's/network_entity's link is mentioned and see page 21, lines 2-5 wherein the local BU to the MAP including *secondary care of address/RCoA* is mentioned**)**; and

sending a packet, addressed to the correspondent node, from the network entity **(**see Fig.1 and page 21, 3rd para wherein the registration of the mobile node with MAP/network entity is mentioned and also sending a BU packet that contains binding

between the Home Address and RCoA to the correspondent node is mentioned**),** wherein the packet has the secondary care of address as a source address **(**see page 21, 3rd para wherein sending a BU packet that contains binding between the Home Address and RCoA to the correspondent node is mentioned and also use of *secondary care of address/RCoA as a source address* for the BU packet to the correspondent node based on the I & P flags setting in the MAP option is mentioned**).**

Soliman et al. do not teach specifically the method comprising tunnelling, in a session between the correspondent node and the mobile node, one or more session packets from the correspondent node to the network entity, wherein the session packets have the correspondent node address as the source address and the care-of address as the destination address; receiving the session packets; decapsulating the session packets; and forwarding the decapsulated session packets to the mobile node.

However, Lee et al. teach a method comprising tunnelling, in a session between the correspondent node and the mobile node, one or more session packets from the correspondent node to the network entity, wherein the session packets have the correspondent node address as the source address and the care-of address as the destination address; receiving the session packets; decapsulating the session packets; and forwarding the decapsulated session packets to the mobile node **(**see col.6, line 66 to col.7, line 7 wherein the correspondent agent *tunneling* the datagrams to the mobile node's care-of-address of the foreign agent/network entity by

encapsulating the data in another header with the IP *source address of the outer header being set to the correspondent agent and the destination address being set to the care-of-address of the foreign agent* is mentioned and the foreign agent/network entity receiving and decapsulating the data and forwarding the data to the mobile node is also mentioned**)**.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Soliman et al. to include tunnelling, in a session between the correspondent node and the mobile node, one or more session packets from the correspondent node to the network entity, wherein the session packets have the correspondent node address as the source address and the care-of address as the destination address, receiving the session packets, decapsulating the session packets and forwarding the decapsulated session packets to the mobile node, disclosed by Lee et al. in order to provide efficiently permitting communication with a mobile node through tunnels across various domains in the mobile IP network.

Regarding claim 2, Soliman et al. and Lee et al. together teach the method of claim 1. Soliman et al. further teach the method of claim 1, wherein the packet is a binding update (see page 21, 3rd para wherein sending a **BU** packet that contains binding between the Home Address and RCoA to the correspondent node is mentioned).
Regarding claim 3, Soliman et al. further teach the method of claim 2, further comprising allocating to the mobile node a care-of address within the foreign network,

wherein the binding update comprises an indication of the care-of address (see page 11, Fig.1 and page 13, lines 10-12).

Regarding claim 6, Soliman et al. together with Lee et al. teach the method of claim 1. Lee et al. further teach the method of claim 1, wherein the network entity translates the destination address of the session packets to a home address of the mobile node prior to forwarding the session packets to the mobile node (see col.7, lines 33-37 wherein the foreign agent/network entity decapsulating the packet and sending the data to the mobile node's home address specified in the inner header IP destination address is mentioned).

Regarding claim 9, Soliman et al. further teach the method of claim 1, wherein the packet is a session packet in a session between the mobile node and the correspondent node (see page 23, section 6.1.1).

Regarding claim 10, Soliman et al. teach a method (see Abstract and Fig.1 on page 11) of operating a network entity (see page 11, Fig.1, block *MAP* for a network entity) at an intermediate node (see AR1/AR2 in Fig.1 and page 11, lines 13-15) between a mobile node in a foreign network (see MN in Fig.1 and page 11, lines 7-8) and a correspondent node (see page 11, CN in Fig.1), the method comprising:

allocating a secondary care of address to the network entity **(**see page 19, section 6 i.e. protocol operation, wherein forming **secondary care of address/RCoA** on MAP's/network_entity's link is mentioned and see page 21, lines 2-5 wherein the local BU to the MAP including *secondary care of address/RCoA* is mentioned**)**; and

receiving from the correspondent node a packet addressed *to the secondary care of* address of the network entity (see page 23, lines 3-4 wherein the MAP/network entity receiving packets addressed to *the secondary care of address/RCoA* from the correspondent node is mentioned).

Soliman et al. do not teach specifically the method comprising having the correspondent node address as the source address in the packet receiving from the correspondent node and wherein the packet is a session packet in a session between the correspondent node and the mobile node, and the network entity forwards the session packet to the mobile node, and wherein the session packet is tunnelled from the correspondent node to the network entity and the network entity decapsulates the session packet prior to forwarding the decapsulated session packet to the mobile node.

However, Lee et al. teach a method comprising having the correspondent node address as the source address in the packet receiving from the correspondent node and wherein the packet is a session packet in a session between the correspondent node and the mobile node, and the network entity forwards the session packet to the mobile node, and wherein the session packet is tunnelled from the correspondent node to the network entity and the network entity decapsulates the session packet prior to forwarding the decapsulated session packet to the mobile node (see col.6, line 66 to col.7, line 7 wherein the correspondent agent *tunneling* the datagrams to the mobile

node's care-of-address of the foreign agent/network entity by encapsulating the data in another header with the IP source address of the outer header being set to the correspondent agent and the destination address being set to the care-of-address of the foreign agent is mentioned and the foreign agent/network entity decapsulating the data and forwarding the data to the mobile node is also mentioned).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Soliman et al. to include having the correspondent node address as the source address in the packet receiving from the correspondent node and to have the packet as a session packet in a session between the correspondent node and the mobile node, and to have the network entity forwarding the session packet to the mobile node, and wherein the session packet being tunnelled from the correspondent node to the network entity and the network entity decapsulating the session packet prior to forwarding the decapsulated session packet to the mobile node, disclosed by Lee et al. in order to provide efficiently permitting communication with a mobile node through tunnels across various domains in the mobile IP network.

Regarding claim 13, Soliman et al. and Lee et al. together teach the method of claim 10.

Lee et al. further teach the method of claim 10, wherein the network entity translates the destination address of the session packet to a home address of the mobile node prior to forwarding the session packet to the mobile node (see col.7, lines 33-37 wherein the foreign agent/network entity decapsulating the packet and sending

the data to the mobile node's home address specified in the inner header IP destination address is mentioned).

Regarding claim 14, Soliman et al. teach a method (see Abstract and Fig.1 on page 11) of operating a network entity (see page 11, Fig.1, block *MAP* for a network entity) at a node (see AR1/AR2 in Fig.1 for a node and page 11, lines 13-15) of a packet-switched data network, wherein the network entity acts *as* an intermediate node between a mobile node (see MN in Fig.1 and page 11, lines 7-8) having a care-of address in a foreign network (see page 19-21 *under section 6.1*, lines 1-4 wherein the mobile node having an on-link CoA in a new MAP domain/foreign network is mentioned) and a correspondent node (see CN in Fig.1), the method comprising: allocating a secondary care-of address *to the network entity, the secondary care of address* corresponding uniquely to a home address of the mobile node (see page 19, section 6 i.e. protocol operation, wherein forming **secondary care of address/RCoA** on MAP's/network_entity's link is mentioned and see page 21, lines 2-5 wherein the local BU to the MAP including *secondary care of address/RCoA* is mentioned and see page 21, 3rd para, lines 1-3 wherein the registration of the mobile node with the MAP with its new RCoA/secondary care-of address with its HA by sending a BU that specifies the binding i.e. RCoA & Home Address is mentioned) *and receiving a packet for the mobile node addressed with the secondary care of address* (see page 23, lines 3-4 wherein the MAP/network entity receiving packets addressed to *the secondary care of address/RCoA* for the mobile node is mentioned).

Soliman et al. do not teach specifically the method wherein the packet is a session packet in a session between the correspondent node and the mobile node, and the network entity forwards the session packet to the mobile node, and wherein the session packet is tunnelled from the correspondent node to the network entity and the network entity decapsulates the session packet prior to forwarding the decapsulated session packet to the mobile node.

However, Lee et al. teach a method wherein the packet is a session packet in a session between the correspondent node and the mobile node, and the network entity forwards the session packet to the mobile node, and wherein the session packet is tunnelled from the correspondent node to the network entity and the network entity decapsulates the session packet prior to forwarding the decapsulated session packet to the mobile node (see col.6, line 66 to col.7, line 7 wherein the correspondent agent *tunneling* the datagrams to the mobile node's care-of-address of the foreign agent/network entity by encapsulating the data in another header with the IP source address of the outer header being set to the correspondent agent and the destination address being set to the care-of-address of the foreign agent is mentioned and the foreign agent/network entity decapsulating the data and forwarding the data to the mobile node is also mentioned).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Soliman et al. to have the packet as a session packet in a session between the correspondent node and the mobile node, and to have the

network entity forwarding the session packet to the mobile node, and to have the session packet being tunnelled from the correspondent node to the network entity and the network entity decapsulating the session packet prior to forwarding the decapsulated session packet to the mobile node, disclosed by Lee et al. in order to provide efficiently permitting communication with a mobile node through tunnels across various domains in the mobile IP network.

Regarding claim 15, Soliman et al. and Lee et al. together teach the method of claim 14.

Soliman et al. further teach the method of claim 14, further comprising sending a binding update indicating the secondary care-of address to the correspondent node (see page 21, 3rd para wherein sending a BU i.e. binding update that specifies the binding between the Home Address and the RCoA/secondary care-of address to the correspondent node is mentioned).

Regarding claim 16, Soliman et al. further teach the method of claim 14, including sending a binding update indicating the secondary care-of address to a home agent (HA) in a home network (HN) of the mobile node (see page 21, 4th para wherein binding the RCoA/secondary care-of address with the HA in a HN of the mobile node is also mentioned).

Regarding claim 17, Soliman et al. further *teach* the method of claim 14, comprising one or more session packets received from the correspondent node in a session between the correspondent node and the mobile node and forwarding the one or more session packets to the mobile node (see page 23, lines 3-6 wherein the MAP/network

entity receiving packets from correspondent node and forwarding to the mobile node is mentioned).

Soliman et al. do not teach specifically the method of claim 14, further comprising translating the destination address of one or more session packets, received from the correspondent node in a session between the correspondent node and the mobile node, from the secondary care-of address to the home address prior to forwarding the one or more session packets to the mobile node.

However, Lee et al. *teach* a method comprising translating the destination address of one or more session packets to a home address of the mobile node prior to forwarding the one or more session packets to the mobile node (see col.7, lines 33-37 wherein the foreign agent/network entity decapsulating the packet and sending the data to the mobile node's home address specified in the inner header IP destination address is mentioned).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Soliman et al. to include translating the destination address of one or more session packets to a home address of the mobile node prior to forwarding the one or more session packets to the mobile node, disclosed by Lee et al. in order to provide efficiently permitting communication with a mobile node across various domains in the mobile IP network.

Regarding claim 18, Soliman et al. further teach the method according to claim 1, wherein the network entity is located at a gateway to the foreign network (see page 11, lines 13-15 wherein the implementation of MAP/network entity in AR1/AR2/gateway to the foreign network is mentioned).

Regarding claim 19, Soliman et al. further teach the method according to claim 18, further comprising configuring the network entity as the default gateway of the mobile node (see page 11, lines 13-15 wherein the implementation of MAP/network entity in AR1/AR2/gateway of the mobile node is mentioned).

Regarding claim 20, Soliman et al. further teach the method according to claim 1, further comprising configuring the network entity as the first hop of the mobile node (see page 11, lines 15-16 wherein the mobile node choosing the first hop MAP is mentioned).

Regarding claim 21, Soliman et al. further teach the method according to claim 1, wherein the network entity and the mobile node are configured to use MIPv6 protocols (see page 9, under section 2, 5th para lines 1-6).

Regarding claim 22, Soliman et al. teach a non-transitory computer readable medium comprising instructions which, when executed, cause the method of claim 1 to be performed (see page 25 under section 6.2 wherein MAP with its binding cache for storing messages and MAP operations using computer instructions/messages are mentioned and refer to the explanation by Soliman et al. and Lee et al. of claim 1 above for performing the method).

Regarding claim 23, Soliman et al. teach a non-transitory computer readable medium comprising instructions which, when executed, cause the method of claim 10 to be performed (see page 25 under section 6.2 wherein MAP with its binding cache for storing messages and MAP operations using computer instructions/messages are mentioned and refer to the explanation by Soliman et al. and Lee et al. of claim 10 above for performing the method).

Regarding claim 24, Soliman et al. teach a hardware apparatus (see page 11, Fig.1) arranged to perform the method of claim 1 (refer to the explanation by Soliman et al. and Lee et al. of claim 1 above for performing the method).

Regarding claim 25, Soliman et al. teach a non-transitory computer readable medium comprising instructions which, when executed, cause the method of claim 14 to be performed (see page 25 under section 6.2 wherein MAP with its binding cache for storing messages and MAP operations using computer instructions/messages are mentioned and refer to the explanation by Soliman et al. and Lee et al. of claim 14 above for performing the method).

3. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman et al. (“Hierarchical Mobile IPv6 mobility management (HMIPv6)”, June, 2003) in view of Lee et al. (US Patent No: 6,915,325 B1) and further in view of Jung (US Pub. No: 2002/0015396 A1).

Regarding claim 7, Soliman et al. and Lee et al. together teach the method of claim 3.

Soliman et al. further teach the method wherein the network entity sends, in a session between the mobile node and the correspondent node, one or more session packets (see page 23, section 6.1.1).

Soliman et al. and Lee et al. together yet do not teach specifically the above method wherein the network entity sending in a session between the mobile node and the correspondent node, one or more session packets *in a tunnel from the network entity to the correspondent node,* with the care-of address as the source address and the correspondent node address as the destination address.

However, Jung teaches a method wherein the network entity sends, in a session between the mobile node and the correspondent node, one or more session packets in a tunnel from the network entity to the correspondent node, with the care-of address as the source address and the correspondent node address as the destination address (see page 2, para [0017] wherein encapsulating the packets received from the mobile node in a foreign agent/network entity *with a tunneling IP header for reverse tunneling* and transmitting the encapsulated packets to the correspondent node is mentioned and also see para [0018]).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Soliman et al. and Lee et al. to have the network entity sending, in a session between the mobile node and the correspondent node, one

or more session packets in a tunnel from the network entity to the correspondent node, with the care-of address as the source address and the correspondent node address as the destination address, disclosed by Jung to provide efficient exchange of data packets between mobile node and correspondent node through forward and reverse tunneling in the system.

Regarding claim 8, Soliman et al., Lee et al. and Jung all together teach the method of claim 7.

Jung further *teaches* the method, wherein the tunneled session packets have a home address of the mobile node as an inner source address (see page 2, paragraphs [0017] & [0018]).

Response to Arguments

4. Applicant's arguments filed on 05/17/2011 have been fully considered but they are not persuasive.

5. In pages 6-8 of Applicant's remarks, regarding independent claims 1, 10 and 14, Applicant mainly mentions that the proposed combination i.e. Soliman and Lee fails to disclose "tunnelling, in a session between the correspondent node and the mobile node, one or more session packets from the correspondent node to the network entity, wherein the session packets have the correspondent node address as the source address and the care-of address as the destination address" *and* further mentions that Lee teaches tunneling between a correspondent agent (60) and a mobile node (10) via the foreign agent, Lee fails to teach "tunnelling, in a session between the correspondent node and the mobile node, one or more session packets from the correspondent

node to the network entity, wherein the session packets have the correspondent node address as the source address and the care-of address as the destination address" as recited in independent Claim 1.

However, the Examiner respectfully disagrees to the above statements of the Applicant as **Lee clearly teaches** "tunnelling, in a session between the correspondent node and the mobile node, one or more session packets from the correspondent node to the network entity, wherein the session packets have the correspondent node address as the source address and the care-of address as the destination address" **(**see col.6, line 66 to col.7, line 7 wherein the correspondent agent *tunneling* the datagrams to the mobile node's care-of-address of the foreign agent/network entity by encapsulating the data in another header with the IP *source address of the outer header being set to the correspondent agent and the destination address being set to the care-of-address of the foreign agent* is mentioned and the foreign agent/network entity receiving and decapsulating the data and forwarding the data to the mobile node is also mentioned and **also see col.4, lines 17-21 wherein the correspondent host 50 and its correspondent agent 60 working together is mentioned and is also mentioned that both** i.e. **the correspondent host 50 and its correspondent agent 60 are referred collectively as a "correspondent node"** and thus **correspondent agent 60** is considered as a part of **correspondent node only and hence Lee teaches tunneling between the correspondent node and the mobile node)** and Soliman et

al. together with Lee et al. teach all the limitations of independent claims 1, 10 and 14 as already mentioned above under Claim Rejections.

6. In page 9 of Applicant's remarks, Applicant further mentions that the proposed combination of Soliman and Lee is improper as because Lee teaches away from the system and method recited in the claims as the tunnel recited in the independent claims starts as the correspondent node and the tunnel described in the cited portions of Lee starts at a correspondent agent.

However, the Examiner respectfully disagrees to the above statement of the Applicant as **Lee clearly teaches tunneling between the correspondent node and the mobile node** as already explained in section 5 above and **thus the proposed combination of Soliman and Lee is proper** and Soliman et al. together with Lee et al. teach all the limitations of independent claims 1, 10 and 14 as already mentioned above under Claim Rejections.

7. The rejection of all other claims is already explained under Claim Rejections above.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any response to this office action should be faxed to (571) 273-8300 or mailed To:

Commissioner for Patents,

P.O. Box 1450

Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SRINIVASA REDDIVALAM whose telephone number is (571)270-3524. The examiner can normally be reached on Mon-Fri 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Srinivasa R Reddivalam/
Examiner, Art Unit 2477
06/15/2011

/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2477